

RECEIVED
BIOTECHNOLOGY
SYSTEMS
BRANCH
MAY 05 2003

TECH CENTER 1600/2013

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/830,502
Source: 1600
Date Processed by STIC: 4/24/2003

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003



1600

RAW SEQUENCE LISTING

DATE: 04/24/2003

PATENT APPLICATION: US/09/830,502

TIME: 14:25:05

Input Set : A:\C26151.app

Output Set: N:\CRF4\04242003\I830502.raw

3 <110> APPLICANT: Barany, Francis
 4 Cao, Weiguo
 5 Tong, Jie
 7 <120> TITLE OF INVENTION: HIGH FIDELITY THERMOSTABLE LIGASE AND USES THEREOF
 9 <130> FILE REFERENCE: 19603/2615
 11 <140> CURRENT APPLICATION NUMBER: 09/830,502
 12 <141> CURRENT FILING DATE: 1999-10-29
 14 <150> PRIOR APPLICATION NUMBER: 60/106,461
 15 <151> PRIOR FILING DATE: 1998-10-30
 17 <150> PRIOR APPLICATION NUMBER: PCT/US99/25437
 18 <151> PRIOR FILING DATE: 1999-10-29
 20 <160> NUMBER OF SEQ ID NOS: 20
 22 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

451 <210> SEQ ID NO: 15
 452 <211> LENGTH: 184
 453 <212> TYPE: PRT
 454 <213> ORGANISM: Thermus aquaticus
 456 <400> SEQUENCE: 15
 457 Tyr Thr Val Glu His Lys Val Asp Gly Leu Ser Val Asn Leu Tyr Tyr
 458 1 , 5 10 15
 E--> 460 Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 461 20 25 30
 E--> 463 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 464 35 40 45
 E--> 466 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 467 50 55 60
 E--> 469 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 470 65 70 75 80
 E--> 472 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 473 85 90 95
 E--> 475 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 476 100 105 110
 E--> 478 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 479 115 120 125
 E--> 481 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 482 130 135 140
 E--> 484 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 485 145 150 155 160
 E--> 487 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Phe Glu Ala

Does Not Comply
 Corrected Diskette Needed

pp 1-4, 6-7

Xaas need
to be explained.
 See p. 6 for
 more information

RAW SEQUENCE LISTING

DATE: 04/24/2003

PATENT APPLICATION: US/09/830,502

TIME: 14:25:05

Input Set : A:\C26151.app

Output Set: N:\CRF4\04242003\I830502.raw

```

488      165      170      175
490 Asp Gly Val Val Val Lys Leu Asp
491      180
494 <210> SEQ ID NO: 16
495 <211> LENGTH: 187
496 <212> TYPE: PRT
497 <213> ORGANISM: Thermus flavus
499 <400> SEQUENCE: 16
500 Tyr Thr Val Glu His Lys Val Asp Gly Leu Ser Val Asn Leu Tyr Tyr
501 1 5 10 15
E--> 503 Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
504 20 25 30
E--> 506 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
507 35 40 45
E--> 509 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
510 50 55 60
E--> 512 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
513 65 70 75 80
E--> 515 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
516 85 90 95
E--> 518 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
519 100 105 110
E--> 521 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
522 115 120 125
E--> 524 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
525 130 135 140
E--> 527 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
528 145 150 155 160
E--> 530 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
531 165 170 175
533 Phe Glu Ala Asp Gly Val Val Val Lys Leu Asp
534 180 185
537 <210> SEQ ID NO: 17
538 <211> LENGTH: 184
539 <212> TYPE: PRT
540 <213> ORGANISM: Thermus filiformis
542 <400> SEQUENCE: 17
543 Tyr Thr Val Glu His Lys Val Asp Gly Leu Ser Val Asn Leu Tyr Tyr
544 1 5 10 15
E--> 546 Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
547 20 25 30
E--> 549 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
550 35 40 45
E--> 552 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
553 50 55 60
E--> 555 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
556 65 70 75 80
E--> 558 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
559 85 90 95

```

*same error**same error**see p.3*

RAW SEQUENCE LISTING

DATE: 04/24/2003

PATENT APPLICATION: US/09/830,502

TIME: 14:25:06

Input Set : A:\C26151.app

Output Set: N:\CRF4\04242003\I830502.raw

E--> 561 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
562 100 105 110
E--> 564 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
565 115 120 125
E--> 567 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
568 130 135 140
E--> 570 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
571 145 150 155 160
E--> 573 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
574 165 170 175
576 Asp Gly Val Val Val Lys Met Asp
577 180
580 <210> SEQ ID NO: 18
581 <211> LENGTH: 184
582 <212> TYPE: PRT
583 <213> ORGANISM: Thermus filiformis
585 <400> SEQUENCE: 18
586 Tyr Thr Val Glu His Lys Val Asp Gly Leu Ser Val Asn Leu Tyr Tyr
587 1 5 10 15
E--> 589 Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
590 20 25 30
E--> 592 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
593 35 40 45
E--> 595 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
596 50 55 60
E--> 598 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
599 65 70 75 80
E--> 601 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
602 85 90 95
E--> 604 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
605 100 105 110
E--> 607 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
608 115 120 125
E--> 610 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
611 130 135 140
E--> 613 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
614 145 150 155 160
E--> 616 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
617 165 170 175
619 Asp Gly Val Val Val Lys Leu Asp
620 180
623 <210> SEQ ID NO: 19
624 <211> LENGTH: 184
625 <212> TYPE: PRT
626 <213> ORGANISM: Thermus sp.
628 <400> SEQUENCE: 19
629 Tyr Thr Val Glu His Lys Val Asp Gly Leu Ser Val Asn Leu Tyr Tyr
630 1 5 10 15
E--> 632 Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

*same**same**same**p.4*

RAW SEQUENCE LISTING

DATE: 04/24/2003

PATENT APPLICATION: US/09/830,502

TIME: 14:25:06

Input Set : A:\C26151.app

Output Set: N:\CRF4\04242003\I830502.raw

```

      633          20          25          30
E--> 635 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      636          35          40          45
E--> 638 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      639          50          55          60
E--> 641 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      642 65          70          75          80
E--> 644 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      645          85          90          95
E--> 647 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      648          100          105          110
E--> 650 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      651          115          120          125
E--> 653 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      654          130          135          140
E--> 656 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      657 145          150          155          160
E--> 659 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      660          165          170          175
      662 Asp Gly Val Val Val Lys Leu Asp
      663          180
      666 <210> SEQ ID NO: 20
      667 <211> LENGTH: 184
      668 <212> TYPE: PRT
      669 <213> ORGANISM: Thermus sp.
      671 <400> SEQUENCE: 20
      672 Tyr Thr Val Glu His Lys Val Asp Gly Leu Ser Val Asn Leu Tyr Tyr
      673 1          5          10          15
E--> 675 Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      676          20          25          30
E--> 678 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      679          35          40          45
E--> 681 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      682          50          55          60
E--> 684 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      685 65          70          75          80
E--> 687 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      688          85          90          95
E--> 690 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      691          100          105          110
E--> 693 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      694          115          120          125
E--> 696 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      697          130          135          140
E--> 699 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      700 145          150          155          160
E--> 702 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      703          165          170          175
      705 Asp Gly Val Val Val Lys Leu Asp

```

*same**same*

RAW SEQUENCE LISTING

DATE: 04/24/2003

PATENT APPLICATION: US/09/830,502

TIME: 14:25:06

Input Set : A:\C26151.app

Output Set: N:\CRF4\04242003\I830502.raw

706

180

VARIABLE LOCATION SUMMARY

DATE: 04/24/2003

PATENT APPLICATION: US/09/830,502

TIME: 14:25:07

Input Set : A:\C26151.app

Output Set: N:\CRF4\04242003\I830502.raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:15; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:15; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:15; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:15; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 Seq#:15; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
 Seq#:15; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,126,127,128
 Seq#:15; Xaa Pos. 129,130,131,132,133,134,135,136,137,138,139,140,141,142
 Seq#:15; Xaa Pos. 143,144,145,146,147,148,149,150,151,152,153,154,155,156
 Seq#:15; Xaa Pos. 157,158,159,160,161,162,163,164,165,166,167,168,169,170
 Seq#:15; Xaa Pos. 171,172
 Seq#:16; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:16; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:16; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:16; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 Seq#:16; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
 Seq#:16; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,129,130,131
 Seq#:16; Xaa Pos. 132,133,134,135,136,137,138,139,140,141,142,143,144,145
 Seq#:16; Xaa Pos. 146,147,148,149,150,151,152,153,154,155,156,157,158,159
 Seq#:16; Xaa Pos. 160,161,162,163,164,165,166,167,168,169,170,171,172,173
 Seq#:16; Xaa Pos. 174,175
 Seq#:17; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:17; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:17; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:17; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 Seq#:17; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
 Seq#:17; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,126,127,128
 Seq#:17; Xaa Pos. 129,130,131,132,133,134,135,136,137,138,139,140,141,142
 Seq#:17; Xaa Pos. 143,144,145,146,147,148,149,150,151,152,153,154,155,156
 Seq#:17; Xaa Pos. 157,158,159,160,161,162,163,164,165,166,167,168,169,170
 Seq#:17; Xaa Pos. 171,172
 Seq#:18; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:18; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:18; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:18; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 Seq#:18; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
 Seq#:18; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,126,127,128
 Seq#:18; Xaa Pos. 129,130,131,132,133,134,135,136,137,138,139,140,141,142
 Seq#:18; Xaa Pos. 143,144,145,146,147,148,149,150,151,152,153,154,155,156
 Seq#:18; Xaa Pos. 157,158,159,160,161,162,163,164,165,166,167,168,169,170
 Seq#:18; Xaa Pos. 171,172
 Seq#:19; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:19; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:19; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74

VARIABLE LOCATION SUMMARY

DATE: 04/24/2003

PATENT APPLICATION: **US/09/830,502**

TIME: 14:25:07

Input Set : **A:\C26151.app**Output Set: **N:\CRF4\04242003\I830502.raw**

Seq#:19; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
Seq#:19; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
Seq#:19; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,126,127,128
Seq#:19; Xaa Pos. 129,130,131,132,133,134,135,136,137,138,139,140,141,142
Seq#:19; Xaa Pos. 143,144,145,146,147,148,149,150,151,152,153,154,155,156
Seq#:19; Xaa Pos. 157,158,159,160,161,162,163,164,165,166,167,168,169,170
Seq#:19; Xaa Pos. 171,172
Seq#:20; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/830,502

DATE: 04/24/2003

TIME: 14:25:07

Input Set : A:\C26151.app

Output Set: N:\CRF4\04242003\I830502.raw

L:460 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:15
M:340 Repeated in SeqNo=15
L:503 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:16
M:340 Repeated in SeqNo=16
L:546 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:17
M:340 Repeated in SeqNo=17
L:589 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:18
M:340 Repeated in SeqNo=18
L:632 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:19
M:340 Repeated in SeqNo=19
L:675 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:20
M:340 Repeated in SeqNo=20